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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/417,705	10/13/1999	JUNYA KAKU	991142	7820

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EXAMINER

NGUYEN, LUONG TRUNG

ART UNIT	PAPER NUMBER
2622	

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/417,705

Applicant(s)

KAKU, JUNYA

Examiner

LUONG T. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 November 2006 and 06 October 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 17-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/01/2006 has been entered.

### ***Response to Arguments***

2. Applicant's arguments filed on 10/06/2006 have been fully considered but they are not persuasive.

In re page 8, Applicant argues that Yokouchi fails to disclose or remotely suggest anything about the principles disclosed by the subject application in which a collapse of a process to display a real-time moving image having a designated screen rate is prevented by writing the processed image data to the memory at a rate of one screen per the first time period while reading from the memory at a rate of one screen per the second time period shorter than the first time period, and a collapse of a process to record the processed image data to the record medium is prevented by suspending the thinning process and the reading process at a time of accepting the recording operation.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a collapse of a process to display a real-time moving image having a designated screen rate is prevented by writing the processed image data to the memory at a rate of one screen per the first time period while reading from the memory at a rate of one screen per the second time period shorter than the first time period, and a collapse of a process to record the processed image data to the record medium is prevented by suspending the thinning process and the reading process at a time of accepting the recording operation) are not recited in the rejected claim(s).

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In this case, regarding claim 23, the Applicant amended claim 23 with limitation "... including a thinning process so as to create processed image data at a rate of one screen per a first time period; a reader for reading the processed image data stored in said memory at a rate of one screen per a second time period which is shorter than the first time period; a first instructor for instructing said processor to suspend the thinning process at a time of accepting a recording operation; and a second instructor for instructing said reader to suspend a reading process in association with an instructing process of said first instructor." The Examiner considers that claim 23 as amended still does not distinguish from Yokouchi et al. and Kanai et al. Yokouchi et al. discloses all the limitations of claim 23, except the limitation "a reader for reading the processed image data stored in said memory at a rate of one screen per a second time period which is shorter than the first time period," which is clearly taught by Kanai et al. (Kanai et al.

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teaches a video signal processor, which comprises a memory, in which the digital data being written into the memory at a first rate based on a writing control clock and being read from the memory at a second rate, which is  $n$  times the first rate,  $n$  is an integer greater than one, see abstract, column 48, lines 40-47, column 57, lines 29-38).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 17, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokouchi et al. (US 6,628,328) in view of Kanai et al. (US 5,835,164).

Regarding claim 23, Yokouchi et al. discloses a digital camera, comprising:

an imaging device having an imaging surface which generates an image signal corresponding to an optical image of an objective scene (CCD 1, figure 1, column 6, lines 60-67);

a processor (processing circuit 6, figure 1, column 7, lines 5-15) for subjecting the image signal generated by said imaging surface to signal processes including a thinning process (thinning read mode, column 7, lines 52-67) so as to create processed image data at a rate of one screen per a first time period;

a memory (DRAM 7, figure 1, column 7, lines 5-15) having a single input/output port;

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a writer for writing to said memory the processed image data output from said processor (CPU 17 control the operation to write image data from processing circuit 6 to DRAM 7, figure 1, column 7, lines 29-30);

a reader for reading the processed image data stored in said memory (CPU 17 control the operation to read out image data from DRAM 7 to transfer to compression/expansion circuit 8, figure 1, column 7, lines 29-30);

a displayer for displaying an image based on the processed image data read out by said reader (LCD 13, figure 1, column 7, lines 35-55);

a first instructor for instructing said processor to suspend the thinning process at a time of accepting a recording operation (a still picture recorded in the recording medium by switching over from the skipping read mode (thinning read mode) to all-pixel read mode, column 9, lines 1-21. This indicates that the thinning read out mode is suspended at the time of recording);

a recorder for recording to a recording medium (recording medium 9, figure 1, column 7, lines 10-15) the processed image data stored in said memory in response to the recording operation;

a second instructor for instructing said reader to suspend a reading process in association with an instructing process of said first instructor (Yokouchi et al. discloses that when displaying the object image in the liquid display unit, a skipping read mode is used; when a still picture is recorded in the recording medium, the skipping read mode is switched to the all-pixel read mode, column 9, lines 1-20. This means that when a still picture is recorded in the recording medium, the skipping read mode is suspended).

Yokouchi et al. fails to specifically disclose a reader for reading the processed image data stored in said memory at a rate of one screen per a second time period which is shorter than the first time period. However, Kanai et al. teach a video signal processor, which comprises a memory, in which the digital data being written into the memory at a first rate based on a writing control clock and being read from the memory at a second rate, which is  $n$  times the first rate,  $n$  is an integer greater than one (see abstract, column 48, lines 40-47, column 57, lines 29-38). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Yokouchi et al. by the teaching of Kanai et al. in order to reduce flicker in the image (see abstract, column 10, lines 60-62).

Regarding claim 17, Yokouchi et al. discloses wherein said memory is an SDRAM (DRAM 7, figure 1, column 7, lines 5-15), and said writer includes a buffer (inherently included in the apparatus) for holding the processed image data output from said processor and a transferor for transferring to said memory the processed image data held by said buffer (the processed image data from processing circuit 6 is transferred to DRAM 7, figure 1).

Regarding claim 21, Kanai et al. discloses the second time period is one over an integer of the first time period (Kanai et al. discloses the digital data being written into the memory at a first rate based on a writing control clock and being read from the memory at a second rate, which is  $n$  times the first rate,  $n$  is an integer greater than one, see abstract, column 57, lines 29-38; since the rate is reciprocal of the time period, the second time period is one over an integer of the first time period).

Regarding claim 22, Yokouchi et al. discloses said recorder records to said record medium the processed image data in a compressed state (compressed image data is recorded in recording medium 9, figure 1, column 7, lines 10-15).

5. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokouchi et al. (US 6,628,328) in view of Kanai et al. (US 5,835,164) further in view of Hirabayashi et al. (US 6,295,596).

Regarding claims 18, 20, Yokouchi et al. and Kanai et al. fail to specifically disclose said memory has a plurality of memory areas, a changer for changing a selecting a memory area at an interval of the first time period; said writer writes the processed image data to one of said plurality of memory areas based on a changing result of said changer; and said reader reads the processed image data from another of said plurality of memory areas based on the changing result of said changer.

However, Hirabayashi et al. disclose memory 11 (SDRAM) has two banks A and B, the data can be written and read out, independently of each other, these banks can be switched (figure 1, column 4, line 63 – column 5, line 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Yokouchi et al. and Kanai et al. by the teaching of Hirabayashi et al. in order to obtain a device in which data can be read out fast by switching the banks (column 6, lines 29-30).

Regarding claim 19, Hirabayashi et al. disclose the changer changes the selecting of the memory area in a predetermined order (column 6, line 64 – column 7, line 40).



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***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUONG T. NGUYEN whose telephone number is (571) 272-7315. The examiner can normally be reached on 7:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID L. OMETZ can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LN  
11/27/06



**LUONG T. NGUYEN  
PATENT EXAMINER**